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# THERMAL & MOISTURE PROTECTION

### SECTION 07160

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#### SECTION 07160

#### BITUMINOUS DAMPPROOFING

#### PART 1 GENERAL

# 1.1 SUMMARY (Not Applicable)

#### 1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

# AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 41	(1985) Asphalt Primer Used in Roofing, Dampproofing and Waterproofing
ASTM D 43	(1973; R 1988) Creosote Primer Used in Roofing, Dampproofing, and Waterproofing
ASTM D 449	(1989) Asphalt Used in Dampproofing and Waterproofing
ASTM D 450	(1978; R 1984) Coal-Tar Pitch Used in Roofing, Dampproofing, and Waterproofing
ASTM D 2823	(1990) Asphalt Roof Coatings

#### 1.3 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with SECTION 01300 SUBMITTAL DESCRIPTIONS:

SD-13 Certificates

Materials; [ ].

Certificates attesting that the materials meet the requirements specified.

# 1.4 GENERAL REQUIREMENTS

### 1.4.1 Product Delivery

Materials shall be delivered in sealed containers bearing the manufacturer's original labels.

# 1.4.2 Contractor's Option

Either the hot-application method or the cold-application method may be used, except only the cold-application method shall be used in confined spaces where the use of hot bitumen would be hazardous.

### 1.4.3 Scheduling

Dampproofing shall be scheduled so that curing will be accomplished prior to backfilling and so that backfilling will be accomplished as soon as possible after curing.

# 1.4.4 Environmental Requirements

Materials shall be applied when the ambient temperature is above 40 degrees

# PART 2 PRODUCTS

**MATERIALS** 

Materials shall conform to the requirements specified below.

1 Asphalt

Asphalt shall conform to ASTM D 449, Type [II] [III].

### 2.1.2 Asphalt Primer

Asphalt primer shall conform to ASTM D 41.

3 Coal-Tar Bitumen

Coal-tar bitumen, modified low-fuming type, shall conform to ASTM D 450, Type II.

### 2.1.4 Creosote

Creosote shall conform to ASTM D 43.

### 2.1.5 Fibrous Asphalt

Fibrous asphalt shall conform to ASTM D 2823, except that mineral stabilizer shall contain no asbestos.

#### PART 3 EXECUTION

#### 3.1 PREPARATION OF SURFACES

Concrete and masonry surfaces to receive dampproofing shall be cleaned of foreign matter and loose particles and shall be surface dry at the time dampproofing is applied. Surfaces to receive coal-tar bitumen dampproofing shall be given a priming coat of creosote; surfaces to receive asphalt or fibrous asphalt dampproofing shall be given a priming coat of asphalt primer. Priming coat shall be applied at a rate of approximately one gallon per 100 square feet, fully covering the entire surface to be dampproofed.

#### 3.2 APPLICATIONS

#### 3.2.1 General

Dampproofing shall be applied after the priming coat is dry, but prior to any deterioration of the primed surface. Asphalt shall not be heated above 475 degrees F and coal-tar bitumen shall not be heated above 400 degrees F. Kettlemen shall be in attendance at all times during the heating to insure that the maximum temperature specified is not exceeded. The second coat of dampproofing material should be applied at right angles to the first coat when conditions permit.

## 3.2.2 Hot-Application Method

Surface to be dampproofed shall be given two mop coats of hot coal-tar bitumen or two mop coats of hot asphalt. The mop coats shall be applied uniformly using not less than 25 pounds of coal-tar bitumen or 20 pounds of asphalt per 100 square feet for each coat. Asphalt or coal-tar bitumen shall be hot when applied and shall be fully bonded to the primed surface. The finished surface shall be smooth, lustrous, and impervious to moisture. Dull or porous spots shall be recoated.

### 3.2.3 Cold-Application Method

Surfaces to be dampproofed shall be given two coats of fibrous asphalt. Each coat shall be applied uniformly using not less than one gallon of fibrous asphalt per 50 square feet for each coat. The first coat shall be applied by brush to provide full bond with the primed surface, and the second coat may be brushed or sprayed over a thoroughly dry first coat. The finished surface shall be of uniform thickness and impervious to moisture. Porous spots shall be recoated.

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